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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,551	07/25/2003	Joseph A. Zupanick	067083.0232	3531

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EXAMINER

TYLER, CHERYL JACKSON

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/627,551

Applicant(s)

ZUPANICK, JOSEPH A.

Examiner

Cheryl J. Tyler

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21, 24, 25, 29, 30 and 32-39 is/are rejected.
- 7) ☒ Claim(s) 20, 22, 23, 26, 27 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/25/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 7-11, 13, 19-31, 32-33, and 37 are objected to because of the following informalities:

- The recitation of "progressive pump" (at least claim 2, 7, 13, 19, 24, 33, and 37, line 1 or 2) is presumed to be --progressive cavity pump-- since this is the art-recognized terminology for this type of pump, and the terminology used throughout the specification. The applicant is reminded that consistent terminology must be used throughout the specification and the claims.
- The recitation of " a pressure sensor operable to determine the fluid pressure associated with the well" (claim 32, lines 5-6) is presumed to be --a pressure sensor operable to determine the fluid pressure associated with the passage-- since the specification teaches that the pressure sensor 74 determines fluid pressure in the passage and not the well. For the purposes of this Office Action, it has been presumed that the pressure sensor is associated with the passage and not the well.
- The recitation of "a valve" (claim 18, line 2) is presumed to be --the valve-- since there is no other valve claimed in the independent claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kramer (4,173,255). Kramer teaches a pump 96 (corresponding to the claimed pumping unit) disposed within a well 90 and having an inlet 100 operable to receive a fluid to be pumped from the well; a control system 10 (corresponding to the claimed valve) coupled to the pump 96 (see Figure 1) and being operable to receive pumped fluid from an outlet of the pump 96 (via pipe 98), and wherein, in response to a decreasing fluid level within the well, movement of the control system relative to the pump causes the pumped fluid to be recirculated from the outlet of the pump to the inlet of the pump (via openings 48 and 30). As illustrated in Figure 2, the control 10 includes a float 28. Figure 3 illustrates that there is a valve member 54 (corresponding to the claimed check valve) proximate the inlet (generally indicated as 18) and operable to direct the recirculate the fluid to the inlet. Kramer's apparatus is capable of performing the method, as claimed.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19, 21, 24-25, 28-30, 32-33, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avramidis (4,961,689) in view of Amani (4,901,798). Avramidis teaches a fluid actuated pumping device 1 disposed within a fluid cavity (unnumbered, but clearly shown in Figure 1) and having a passage (unnumbered, but illustrated as the annular area between coaxial hose 2 and inner tubing 9) extending to a suction end (generally indicated as 28); and pressurized air (corresponding to the claimed pressure source) coupled to the passage and operable to force a fluid outwardly from the passage proximate to the suction end of the pumping device (see column 4, lines 17-60). As illustrated in Figure 1, the coaxial portion of the hose 2 acts as a progressive cavity pump, with the rotor being the hose 2 and the stator being well casing 5. Avramidis further teaches that the operation of the pumping system may be automated using a controller device.

While Avramidis teaches most of the limitations of the claims, he does not explicitly teach a pressure sensor coupled to the passage to determine the fluid pressure in the passage corresponds to a fluid depth within the fluid cavity. Amani teaches a controller 108 that operates based on the fluid differential pressure inside well tubing 104. According to Amani, "the microprocessor controller 108 receives electronic signals ... from suitable pressure transmitters transmitting fluid pressure at different locations inside tubing 104" (column 6, lines 14-18). Amani further teaches the controller is operable to increase and/or decrease the flow rate in response to the fluid pressure (see column 10, line 25 - column 11, line 7). Amani teaches that it is desirable to control the pressure in the fluid cavity in order to prevent "well loading" that may

reduce the production rate of the well. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a pressure sensor in the passage, as taught be Amani, in the Avramidis invention, in order to advantageously prevent well loading and increasing the production life of the well.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 4-5, 7, 9, 12, 14-15, 17, 19, 40-43, and 45-46 of U.S. Patent No. 6,497,556. Although the conflicting claims are not identical, they are not patentably distinct from each other because they include the same structural limitations and method of operation, namely, a pumping unit in a well, the pumping unit having an inlet; a valve coupled to the pumping unit and responsive to a decreasing fluid level within the well, wherein movement of the valve relative to the pumping unit causes the pumped fluid to be circulated from the outlet to the inlet of the pumping unit; a floating valve; a progressive cavity pump; a locking system operable to releasably secure the valve in a predetermined location relative to the pumping unit; a check valve disposed proximate the inlet and operable to direct the recirculated fluid to the inlet; and a plurality of stops disposed proximate the valve wherein the stops limit the movement of the valve to predetermined locations relative to the pumping unit. Both the instant application and the '556 patent include the same structural limitations, and method for operating the apparatus.

8. Claims 32-39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 11, 15-16, 18, and 25 of U.S. Patent No. 6,604,910. Although the conflicting claims are not identical, they are not patentably distinct from each other because they include the same structural limitations and method of operation, namely, a pumping unit in a well, the pumping unit having a passage extending to a suction end of the pumping unit; a pressure sensor operable to determine the fluid pressure within the passage; a controller coupled to the

pumping unit and operable to decrease a flow rate of the pumping unit in response to a decrease in the fluid pressure, and operable to increase a flow rate of the pumping unit in response to an increase in the fluid pressure; a progressive cavity pump; a controller operable to regulate the flow rate of the pumping unit by regulating a rotational velocity of the progressive cavity pump; a controller operable to regulate the flow rate of the pumping unit to maintain a substantially constant depth of the fluid in the well. Both the instant application and the '910 patent include the same structural limitations, and method for operating the apparatus.

#### ***Allowable Subject Matter***

9. Claims 20, 22-23, 26-27, and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl J. Tyler whose telephone number is 703-306-2772. The examiner can normally be reached on Monday-Thursday, 6:00 - 10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine R. Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cheryl J. Tyler  
Primary Examiner  
Art Unit 3746

CJT